

## Title (en)

DNA SEQUENCING WITH A T7-TYPE GENE 6 EXONUCLEASE.

## Publication

**EP 0598832 A4 19951025 (EN)**

## Application

**EP 92918346 A 19920814**

## Priority

- US 9206826 W 19920814
- US 74519391 A 19910815
- US 92756292 A 19920806

## Abstract (en)

[origin: WO9304184A1] Method for determining the nucleotide base sequence of DNA present in a lambda virus coat which is not replicable in a bacterial cell independent of any lambda DNA within that coat. The method includes preparing a lambda phage preparation containing the DNA, purifying the nucleic acid from the lambda phage to provide purified nucleic acid, and contacting that purified nucleic acid with a T7-type gene 6 exonuclease to allow the exonuclease to remove at least a portion of one strand of the DNA. The method further includes providing a primer able to hybridize with the other strand of the DNA complementary to the portion of the one strand and contacting the primer with the other strand of DNA in the presence of at least one deoxynucleoside triphosphate (dNTP) and at least one chain terminating agent (e.g., a dideoxynucleoside triphosphate, ddNTP) and a DNA polymerase, to allow the primer to be extended by the polymerase until extension is stopped by incorporation of the chain terminating agent.

## IPC 1-7

**C12P 19/34; C12Q 1/68**

## IPC 8 full level

**C07K 14/01** (2006.01); **C12N 15/09** (2006.01); **C12N 15/10** (2006.01); **C12Q 1/68** (2006.01)

## CPC (source: EP US)

**C07K 14/005** (2013.01 - EP US); **C12N 15/10** (2013.01 - EP US); **C12Q 1/6869** (2013.01 - EP US); **C12N 2795/10322** (2013.01 - EP US); **Y10T 436/143333** (2015.01 - EP US)

## Citation (search report)

- [Y] WO 9105065 A1 19910418 - STRATAGENE INC [US]
- [DXY] D. BASTIA ET AL.: "The nucleotide sequence surrounding the replication terminus of R6K", PROC. NATL.ACAD SCI., vol. 78, no. 4, NATL. ACAD SCI., WASHINGTON, DC, US, pages 2095 - 2099
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- [A] J.W. TAYLOR ET AL.: "The rapid generation of oligonucleotide-directed mutations at high frequency using phosphorothioate-modified DNA", NUCLEIC ACIDS RESEARCH, vol. 13, no. 24, IRL PRESS LIMITED, OXFORD, ENGLAND, pages 8765 - 8785
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- [DA] A.J.H. SMITH: "The use of exonuclease III for preparing single stranded DNA for use as a template in the chain terminator sequencing method", NUCLEIC ACIDS RESEARCH, vol. 6, no. 3, IRL PRESS LIMITED, OXFORD, ENGLAND, pages 831848
- See references of WO 9304184A1

## Designated contracting state (EPC)

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**US 9206826 W 19920814**; AU 2474392 A 19920814; CA 2115674 A 19920814; EP 92918346 A 19920814; JP 50445393 A 19920814; US 92756292 A 19920806